

AMENDMENTS TO THE CLAIMS

1-41. (Cancelled)

42. (Withdrawn) A method of inducing hair growth in a mammal by providing to said mammal a population of cells, wherein at least 30% of said cells are multipotent stem cells or progeny thereof and are capable of producing hair follicle cells.

43. (Withdrawn) The method of claim 42, wherein at least 80% of the cells are multipotent stem cells or progeny thereof and are capable of producing hair follicle cells.

44. (Withdrawn) The method of claim 43, wherein at least 90% of the cells are multipotent stem cells or progeny thereof and are capable of producing hair follicle cells.

45. (Withdrawn) The method of claim 44, wherein at least 95% of the cells are multipotent stem cells or progeny thereof and are capable of producing hair follicle cells.

46. (Withdrawn) The method of claim 42, wherein said stem cells are substantially purified from hair follicles or dermal papilla-containing portions thereof.

47. (Withdrawn) The method of claim 42, wherein said multipotent stem cells express at least one protein selected from the group consisting of nestin, WNT-1, vimentin, fibronectin, S100, slug, snail, twist, Pax3, Sox9, Dermo, and SHOX2.

48. (Withdrawn) The method of claim 42, wherein said multipotent stem cells do not express measurable levels of p75NTR.

49. (Withdrawn) The method of claim 42, wherein said multipotent stem cells do not express measurable levels of at least one protein selected from the group consisting of tyrosinase, c-kit, trypl, DCT, MBP, P0, and SOX10.

50. (Withdrawn) The method of claim 42, wherein said mammal has a condition characterized by a reduced amount of hair.

51. (Withdrawn) The method of claim 50, wherein said condition is the result of alopecia, accidental injury, damage to hair follicles, surgical trauma, a burn wound, radiation therapy, chemotherapy, an incisional wound, or a donor site wound from skin transplant.

52. (Withdrawn) The method of claim 42, wherein said cells are from said mammal.

53. (Currently amended) A method of regenerating skin in a mammal in need thereof by providing to said mammal a population of cells, wherein at least 30% of said cells are multipotent stem cells or progeny thereof and are capable of regenerating skin, wherein said cells express nestin and fibronectin and do not express measurable levels p75NTR or keratin 15 using northern blot analysis, RT-PCR, western blot analysis, or immunohistochemical analysis, and wherein said cells regenerate skin in said mammal.

54. (Original) The method of claim 53, wherein at least 80% of the cells are multipotent stem cells or progeny thereof and are capable of regenerating skin.

55. (Currently amended) The method of claim 54, wherein at least 90% of the cells are ~~are~~ multipotent stem cells or progeny thereof and are capable of regenerating skin.

56. (Original) The method of claim 55, wherein at least 95% of the cells are multipotent stem cells or progeny thereof and are capable of regenerating skin.

57. (Currently amended) The method of claim 53, wherein said stem cells are substantially purified from ~~hair follicles or~~ the dermal papilla of a hair follicle papilla-containing portions thereof.

58. (Currently amended) The method of claim 53, wherein said multipotent stem cells further express at least one protein selected from the group consisting of ~~nestin~~, WNT-1, vimentin, ~~fibronectin~~, S100, slug, snail, twist, Pax3, Sox9, Dermo, and SHOX2.

59. (Cancelled)

60. (Withdrawn – currently amended) The method of claim 53, wherein said multipotent stem cells do not express measurable levels of at least one protein selected from the group consisting of tyrosinase, c-kit, tryp1, DCT, MBP, P0, and SOX10 using northern blot analysis, RT-PCR, western blot analysis, or immunohistochemical analysis.

61. (Original) The method of claim 53, wherein said mammal has a condition characterized by a damaged skin.

62. (Original) The method of claim 61, wherein said condition is the result of accidental injury, surgical trauma, a burn wound, an incisional wound, or a donor site wound from skin transplant.

63. (Original) The method of claim 53, wherein said cells are from said mammal.

64. (Withdrawn) A method of making hair follicles, said method comprising culturing multipotent stem cells under conditions that induce said stem cells to differentiate into hair follicles.

65. (Withdrawn) The method of claim 53, wherein said stem cells are substantially purified from hair follicles or dermal papilla-containing portions thereof.

66. (Withdrawn) The method of claim 53, wherein said multipotent stem cells express at least one protein selected from the group consisting of nestin, WNT-1, vimentin, fibronectin, S100, slug, snail, twist, Pax3, Sox9, Dermo, and SHOX2.

67. (Withdrawn) The method of claim 53, wherein said multipotent stem cells do not express measurable levels of p75NTR.

68. (Withdrawn) The method of claim 53, wherein said multipotent stem cells do not express measurable levels of at least one protein selected from the group consisting of tyrosinase, c-kit, trypl, DCT, MBP, P0, and SOX10.

69. (New) The method of claim 63, wherein said mammal is a human.

70. (New) The method of claim 53, wherein at least 30% of said cells are multipotent stem cells.

71. (New) The method of claim 70, wherein at least 80% of said cells are multipotent stem cells.